

Work Order ID 144440

\*144440\*

Page 1

April 18, 2016 11:22:42 AM

Item ID: D212-803-219 Accept \*N900040100\* Setup Start \*NS1\*  
 Revision ID: Stop \*NS2\*  
 Item Name: Left Hand Pilot in Command - Medium/Standard Design, Eagle Single  
 Start Date: 4/20/2016 Start Qty: 1.00 \*1\* Cust Item ID:  
 Required Date: 5/6/2016 Req'd Qty: 1.00 \*1\* Customer:  
 Reference:

Approvals: Process Plan: SLB Date: 20160418 Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start \*NR1\*  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop \*NR2\*

| Sequence ID/<br>Work Center ID | Operation<br>Description                                        | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|--------------------------------|-----------------------------------------------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
| Draw Nbr                       | Revision Nbr                                                    |                      |         |        |              |               |               |                  |                |
| DSI9728                        | A                                                               |                      |         |        |              |               |               |                  |                |
| IIN-D212-803                   | D                                                               |                      |         |        |              |               |               |                  |                |
| 100                            | Document Control                                                | 0.00                 |         |        |              |               |               |                  |                |
| *100*                          | DOCUMENT CONTROL                                                |                      |         |        |              |               |               |                  |                |
| DC                             | Memo                                                            | 0.00                 |         |        |              |               |               |                  |                |
| Doc.Control -USB or Paperwork  | Photocopy blue file and type labels per PPP D212-803-219 CHG001 |                      |         |        |              |               |               |                  |                |
|                                |                                                                 |                      |         |        |              |               |               |                  |                |
| 110                            | Pick Kit                                                        | 0.00                 |         |        |              |               |               |                  |                |
| *110*                          |                                                                 |                      |         |        |              |               |               |                  |                |
| Packaging                      | Memo                                                            | 0.00                 |         |        |              |               |               |                  |                |
| Packaging                      |                                                                 |                      |         |        |              |               |               |                  |                |

DAS  
27

9-89

MAY 03 2016

DAS  
8  
9-89

APR 30 2016

DAS  
28  
9-89

DQA: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order update only ☐

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |  |                       |                                              |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|-----------------------|----------------------------------------------|--|
| Work Order: _____<br><br>Part No. _____<br><br>NCR No. _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/><br>Suspected Unapproved <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  | <b>AGAINST DEPARTMENT/PROCESS</b><br><br><div style="display: flex; justify-content: space-between;"> <div>             Skid-tube <input type="checkbox"/><br/>             Machining <input type="checkbox"/><br/>             Thermoforming <input type="checkbox"/><br/>             Large Fab <input type="checkbox"/> </div> <div>             Cross tube <input type="checkbox"/><br/>             Small Fab <input type="checkbox"/><br/>             Finishing <input type="checkbox"/><br/>             Composite <input type="checkbox"/> </div> <div>             Water Jet <input type="checkbox"/><br/>             Prod. Eng. Coord. <input type="checkbox"/><br/>             Rec/Store/Packaging <input type="checkbox"/><br/>             Supplier <input type="checkbox"/> </div> <div>             Engineering <input type="checkbox"/><br/>             Quality <input type="checkbox"/><br/>             Other <input type="checkbox"/> </div> </div> |  |  |                       |                                              |  |
| Date :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  | Step #:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  | QTY Effective :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |  | MRB (QSI042) Approval |                                              |  |
| Description Work Order Deviation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  | Disposition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |                       | Completed By                                 |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |  |                       | Lead hand / Supervisor Approval Verification |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |  |                       |                                              |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |  |                       |                                              |  |
| <b>Root Cause</b><br><div style="display: flex; justify-content: space-between;"> <div>             Environment <input type="checkbox"/><br/>             Design <input type="checkbox"/><br/>             Doc/Data <input type="checkbox"/><br/>             Equip/Tooling <input type="checkbox"/><br/>             Handling/Pre <input type="checkbox"/><br/>             Material <input type="checkbox"/><br/>             Internal Transport <input type="checkbox"/><br/>             Tribal Knowledge <input type="checkbox"/><br/>             LOA <input type="checkbox"/><br/>             Substation <input type="checkbox"/><br/>             Past Expiry Date <input type="checkbox"/><br/>             Misidentified <input type="checkbox"/> </div> <div>             No Re-verification <input type="checkbox"/><br/>             Operator <input type="checkbox"/><br/>             Offset/Setup <input type="checkbox"/><br/>             Supplier <input type="checkbox"/><br/>             Training <input type="checkbox"/><br/>             Use for Testing <input type="checkbox"/><br/>             Poor Information <input type="checkbox"/><br/>             Rushing <input type="checkbox"/><br/>             Product Improvement <input type="checkbox"/><br/>             Process Improvement <input type="checkbox"/><br/>             Manufacturing Process <input type="checkbox"/><br/>             Past Due <input type="checkbox"/> </div> </div> |  | <b>FAULT CATEGORY</b><br><div style="display: flex; justify-content: space-between;"> <div>             Pressure/Forced <input type="checkbox"/><br/>             Bending <input type="checkbox"/><br/>             Centre Not Concentric <input type="checkbox"/><br/>             Cracks <input type="checkbox"/><br/>             Crimp/Kink/Ripple/Wave <input type="checkbox"/><br/>             Cuffs <input type="checkbox"/><br/>             Crushing <input type="checkbox"/><br/>             Heat Treat <input type="checkbox"/><br/>             Wave/Twist in Tube <input type="checkbox"/><br/>             Marks/Chatter <input type="checkbox"/> </div> <div>             Temperature/Cure <input type="checkbox"/><br/>             Set-up <input type="checkbox"/><br/>             BOM/Route <input type="checkbox"/><br/>             Broken/Damage/Defect <input type="checkbox"/><br/>             Inspection Incomplete/Unqualified <input type="checkbox"/><br/>             Contamination <input type="checkbox"/><br/>             Countersink <input type="checkbox"/><br/>             Cut Too Short <input type="checkbox"/><br/>             Instructions Incomplete/Unclear <input type="checkbox"/><br/>             Drill Holes <input type="checkbox"/> </div> <div>             Power Loss/Surge <input type="checkbox"/><br/>             Folio/Program <input type="checkbox"/><br/>             Grain <input type="checkbox"/><br/>             Weld <input type="checkbox"/><br/>             Wrong Stock Pulled <input type="checkbox"/><br/>             Out of Sequence <input type="checkbox"/><br/>             Off-set <input type="checkbox"/><br/>             Mislabeled <input type="checkbox"/><br/>             Fit/Function <input type="checkbox"/><br/>             Misaligned/off center <input type="checkbox"/> </div> <div>             Positioned Wrong <input type="checkbox"/><br/>             Outside Dimensions <input type="checkbox"/><br/>             Over/Under tolerance <input type="checkbox"/><br/>             Part Incorrect <input type="checkbox"/><br/>             Part Lost/Missing <input type="checkbox"/><br/>             Part Moved <input type="checkbox"/><br/>             Drawing <input type="checkbox"/><br/>             Finish <input type="checkbox"/><br/>             Misread <input type="checkbox"/><br/>             Turning Sequence <input type="checkbox"/> </div> </div> |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |  |                       |                                              |  |
| OTHER :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |  |                       |                                              |  |

**Work Order ID 144440****\*144440\***

Page 2

April 18, 2016 11:22:42 AM

Item ID: D212-803-219 Accept **\*N900040100\*** Setup Start **\*NS1\***  
Revision ID: Stop **\*NS2\***  
Item Name: Left Hand Pilot in Command - Medium/Standard Design, Eagle Single  
Start Date: 4/20/2016 Start Qty: 1.00 **\*1\*** Cust Item ID:  
Required Date: 5/6/2016 Req'd Qty: 1.00 **\*1\*** Customer:  
Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

| Sequence ID/<br>Work Center ID | Operation<br>Description                               | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty     | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|--------------------------------|--------------------------------------------------------|----------------------|---------|--------|--------------|-------------------|---------------|------------------|----------------|
| 120                            | QC4- 100% Inspect kits for completeness                | 0.00                 |         |        |              |                   |               |                  |                |
| <b>*120*</b>                   |                                                        |                      |         |        |              |                   |               |                  |                |
| QC                             | Memo                                                   | 0.00                 |         |        |              | DAS<br>27<br>9-89 |               |                  |                |
| Quality Control                |                                                        |                      |         |        |              |                   |               |                  |                |
|                                |                                                        |                      |         |        |              |                   |               |                  | MAY 03 2016    |
| 130                            | Packaging                                              | 0.00                 |         |        |              |                   |               |                  |                |
| <b>*130*</b>                   |                                                        |                      |         |        |              |                   |               |                  |                |
| Packaging                      | Memo                                                   | 0.00                 |         |        |              | DAS<br>27<br>9-89 |               |                  |                |
| Packaging                      | Identify and pack for shipping as per PPP D212-803-219 |                      |         |        |              |                   |               |                  |                |
|                                | Location: <u>FF28</u>                                  |                      |         |        |              |                   |               |                  |                |
|                                | PPP Rev: _____                                         |                      |         |        |              |                   |               |                  |                |
|                                |                                                        |                      |         |        |              |                   |               |                  | MAY 03 2016    |
| 140                            | QC21- Final Inspection - Work Order Release            | 0.00                 |         |        |              |                   |               |                  |                |
| <b>*140*</b>                   |                                                        |                      |         |        |              |                   |               |                  |                |
| QC                             | Memo                                                   | 0.00                 |         |        |              |                   |               |                  |                |
| Quality Control                |                                                        |                      |         |        |              |                   |               |                  | MAY 04 2016    |

MCS MAY 04 2016

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

## WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order update only ☐

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |                                                 |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------|--|
| Work Order: _____<br><br>Part No. _____<br><br>NCR No. _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/><br>Suspected Unapproved <input type="checkbox"/> | <b>AGAINST DEPARTMENT/PROCESS</b><br><br><div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/><br/>           Machining <input type="checkbox"/><br/>           Thermoforming <input type="checkbox"/><br/>           Large Fab <input type="checkbox"/> </div> <div>           Cross tube <input type="checkbox"/><br/>           Small Fab <input type="checkbox"/><br/>           Finishing <input type="checkbox"/><br/>           Composite <input type="checkbox"/> </div> <div>           Water Jet <input type="checkbox"/><br/>           Prod. Eng. Coord. <input type="checkbox"/><br/>           Rec/Store/Packaging <input type="checkbox"/><br/>           Supplier <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/><br/>           Quality <input type="checkbox"/><br/>           Other <input type="checkbox"/> </div> </div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |                                                 |  |
| Date : _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Step #: _____                                                                                                                                                                      | QTY Effective : _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  | MRB (QSI042) Approval                           |  |
| Description Work Order Deviation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                    | Disposition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |                                                 |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  | Completed By                                    |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  | Lead hand / Supervisor<br>Approval Verification |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  | QC / QA Coordinator<br>Approval                 |  |
| <b>Root Cause</b><br><div style="display: flex; justify-content: space-between;"> <div>           Environment <input type="checkbox"/><br/>           Design <input type="checkbox"/><br/>           Doc/Data <input type="checkbox"/><br/>           Equip/Tooling <input type="checkbox"/><br/>           Handling/Pre <input type="checkbox"/><br/>           Material <input type="checkbox"/><br/>           Internal Transport <input type="checkbox"/><br/>           Tribal Knowledge <input type="checkbox"/><br/>           LOA <input type="checkbox"/><br/>           Substation <input type="checkbox"/><br/>           Past Expiry Date <input type="checkbox"/><br/>           Misidentified <input type="checkbox"/> </div> <div>           No Re-verification <input type="checkbox"/><br/>           Operator <input type="checkbox"/><br/>           Offset/Setup <input type="checkbox"/><br/>           Supplier <input type="checkbox"/><br/>           Training <input type="checkbox"/><br/>           Use for Testing <input type="checkbox"/><br/>           Poor Information <input type="checkbox"/><br/>           Rushing <input type="checkbox"/><br/>           Product Improvement <input type="checkbox"/><br/>           Process Improvement <input type="checkbox"/><br/>           Manufacturing Process <input type="checkbox"/><br/>           Past Due <input type="checkbox"/> </div> </div> |                                                                                                                                                                                    | <b>FAULT CATEGORY</b><br><div style="display: flex; justify-content: space-between;"> <div>           Pressure/Forced <input type="checkbox"/><br/>           Bending <input type="checkbox"/><br/>           Centre Not Concentric <input type="checkbox"/><br/>           Cracks <input type="checkbox"/><br/>           Crimp/Kink/Ripple/Wave <input type="checkbox"/><br/>           Cuffs <input type="checkbox"/><br/>           Crushing <input type="checkbox"/><br/>           Heat Treat <input type="checkbox"/><br/>           Wave/Twist in Tube <input type="checkbox"/><br/>           Marks/Chatter <input type="checkbox"/> </div> <div>           Temperature/Cure <input type="checkbox"/><br/>           Set-up <input type="checkbox"/><br/>           BOM/Route <input type="checkbox"/><br/>           Broken/Damage/Defect <input type="checkbox"/><br/>           Inspection Incomplete/Unqualified <input type="checkbox"/><br/>           Contamination <input type="checkbox"/><br/>           Countersink <input type="checkbox"/><br/>           Cut Too Short <input type="checkbox"/><br/>           Instructions Incomplete/Unclear <input type="checkbox"/><br/>           Drill Holes <input type="checkbox"/> </div> <div>           Power Loss/Surge <input type="checkbox"/><br/>           Folio/Program <input type="checkbox"/><br/>           Grain <input type="checkbox"/><br/>           Weld <input type="checkbox"/><br/>           Wrong Stock Pulled <input type="checkbox"/><br/>           Out of Sequence <input type="checkbox"/><br/>           Off-set <input type="checkbox"/><br/>           Mislabeled <input type="checkbox"/><br/>           Fit/Function <input type="checkbox"/><br/>           Misaligned/off center <input type="checkbox"/> </div> <div>           Positioned Wrong <input type="checkbox"/><br/>           Outside Dimensions <input type="checkbox"/><br/>           Over/Under tolerance <input type="checkbox"/><br/>           Part Incorrect <input type="checkbox"/><br/>           Part Lost/Missing <input type="checkbox"/><br/>           Part Moved <input type="checkbox"/><br/>           Drawing <input type="checkbox"/><br/>           Finish <input type="checkbox"/><br/>           Misread <input type="checkbox"/><br/>           Turning Sequence <input type="checkbox"/> </div> </div> |  |                                                 |  |
| OTHER : <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |                                                 |  |

April 18, 2016 11:22:45 AM

**Work Order ID:** 144440

**\*144440\***

**Parent Item:** D212-803-219

**\*D212-803-219\***

**Parent Item Name:** Left Hand Pilot in Command - Medium/Standard Design, Eagle Single

**Start Date:** 4/20/2016**Required Date:** 5/6/2016

**Start Qty: 1.00**

**Required Qty: 1.00**

**Comments:** IPP REV:A 15.07.03 NEW ISSUE DD VERF:JLM

| Component Item ID/<br>Item Name                  | Replacement<br>Item ID | Mfg/<br>Purch | Bin<br>Item | Primary<br>Location | Last<br>Location | Route<br>Seq ID | Unit of<br>Measure | Qty on<br>Hand | Qty per Kit     | Total<br>Qty | Qty<br>Issued | Date<br>Issued | Status          |
|--------------------------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-----------------|--------------|---------------|----------------|-----------------|
| D5155-045                                        |                        | Manufactured  | No          |                     |                  |                 | Each               | 0.0000         |                 | 1            |               |                |                 |
|                                                  |                        |               |             |                     |                  |                 |                    |                | **              | 144455       |               |                | DAS 28 9-89     |
| Co-Pilot Collective Head Assembly (Eagle Single) |                        |               |             |                     |                  |                 |                    |                |                 |              |               |                |                 |
| D5156-1                                          |                        | Manufactured  | No          |                     |                  |                 | Each               | 0.0000         |                 | 1            |               |                |                 |
|                                                  |                        |               |             |                     |                  |                 |                    |                | **              | 143445       |               |                | MCS DAS 28 9-89 |
| Face Plate                                       |                        |               |             |                     |                  |                 |                    |                |                 |              |               |                |                 |
| D5156-3                                          |                        | Manufactured  | No          |                     |                  |                 | Each               | 0.0000         |                 | 1            |               |                |                 |
|                                                  |                        |               |             |                     |                  |                 |                    |                | **              | 143376       |               |                | MCS DAS 28 9-89 |
| Face Plate                                       |                        |               |             |                     |                  |                 |                    |                |                 |              |               |                |                 |
| MS171599                                         |                        | Purchased     | No          |                     |                  |                 | Each               | 21.0000        |                 | 1            |               |                |                 |
|                                                  |                        |               |             |                     |                  |                 |                    |                | **              |              |               |                | DAS 28 9-89     |
| Pin                                              |                        |               |             |                     |                  |                 |                    |                |                 |              |               |                |                 |
|                                                  |                        |               |             | <u>Location</u>     |                  |                 | <u>Loc Qty</u>     |                | <u>Loc Code</u> |              |               |                |                 |
|                                                  |                        |               |             | Return2015          |                  |                 | 1                  |                |                 |              |               |                |                 |
|                                                  |                        |               |             | m123183             |                  |                 | 1                  |                |                 |              |               |                |                 |
|                                                  |                        |               |             | ST315               |                  |                 | 20                 |                |                 |              |               |                |                 |
|                                                  |                        |               |             | m134573             |                  |                 | 20                 |                |                 |              |               |                |                 |
| D4410-9                                          |                        | Manufactured  | No          |                     |                  |                 | Each               | 6.0000         |                 | 1            |               |                |                 |
|                                                  |                        |               |             |                     |                  |                 |                    |                | **              |              |               |                | DAS 28 9-89     |
| Trigger                                          |                        |               |             |                     |                  |                 |                    |                |                 |              |               |                |                 |
|                                                  |                        |               |             | <u>Location</u>     |                  |                 | <u>Loc Qty</u>     |                | <u>Loc Code</u> |              |               |                |                 |
|                                                  |                        |               |             | ST095               |                  |                 | 6                  |                |                 |              |               |                |                 |
|                                                  |                        |               |             | 116420              |                  |                 | 5                  |                |                 |              |               |                |                 |
|                                                  |                        |               |             | 91374               |                  |                 | 1                  |                |                 |              |               |                |                 |

# Picklist Print

April 18, 2016 11:22:46 AM

Page 2

Work Order ID: 144440

**\*144440\***

Parent Item: D212-803-219

**\*D212-803-219\***

Parent Item Name: Left Hand Pilot in Command - Medium/Standard Design, Eagle Single

Start Date: 4/20/2016

Required Date: 5/6/2016

Start Qty: 1.00

Required Qty: 1.00

D5055-1

Manufactured No

Each

5.0000

1

**\*D5055-1\***

Placard

\*\*

DAS

6

9-89

DAS

28

9-89

Location

Loc Qty

Loc Code

ST146

5

139538

5

Each

3.0000

1

D5055-3

Manufactured No

**\*D5055-3\***

Placard

\*\*

DAS

6

9-89

DAS

28

9-89

Location

Loc Qty

Loc Code

Return2016

1

117709

1

ST146

2

141699

2

Each

2.0000

1

D4411-7

Manufactured No

**\*D4411-7\***

Placard

\*\*

DAS

6

9-89

DAS

28

9-89

Location

Loc Qty

Loc Code

Return2016

1

132770

1

ST096

1

141456

1

Each

29.0000

1

AN565F8H9

Purchased No

**\*AN565F8H9\***

Set Screw

\*\*

DAS

28

9-89

Location

Loc Qty

Loc Code

ST330

29

m129036

29

DAS

6

9-89

APR 30 2016

April 18, 2016 11:22:46 AM

Shop Packet Print

Page 2

# Picklist Print

April 18, 2016 11:22:46 AM

Page 3

Work Order ID: 144440

**\*144440\***

Parent Item: D212-803-219

**\*D212-803-219\***

Parent Item Name: Left Hand Pilot in Command - Medium/Standard Design, Eagle Single

Start Date: 4/20/2016

Required Date: 5/6/2016

Start Qty: 1.00

Required Qty: 1.00

MS20253-1-065 MS20253-1-7200 Purchased No

Each 6.0000 1

**\*MS20253-1-065\***

Hinge Pin

\*\*

DAS  
8-89

DAS  
28  
9-89

DAS  
8  
9-89

Location

Loc Qty

Loc Code

GA

6

123522

6

MS21042L08 Purchased No

Each 1,191.000

**\*MS21042L08\***

Nut

\*\*

Location

Loc Qty

Loc Code

CA

101

m129682

101

GA

319

m133134

3

m134063

316

ST303

371

m133922

171

m134574

200

ST308

400

m134376

400

MS21042L3 Purchased No

Each 1,780.000

**\*MS21042L3\***

Nut

\*\*

Location

Loc Qty

Loc Code

FP001

100

m133790

100

GA

782

m133790

3

m134360

779

ST304

898

m134039

12

m134360

886

DAS  
6  
9-89

DAS  
28  
9-89

DAS  
6  
9-89

APR 30 2016 DAS  
28  
9-89

April 18, 2016 11:22:46 AM

Shop Packet Print

Page 3

# Picklist Print

April 18, 2016 11:22:46 AM

Page 4

Work Order ID: 144440

**\*144440\***

Parent Item: D212-803-219

**\*D212-803-219\***

Parent Item Name: Left Hand Pilot in Command - Medium/Standard Design, Eagle Single

Start Date: 4/20/2016

Required Date: 5/6/2016

Start Qty: 1.00

Required Qty: 1.00

MS21919WDG10

Purchased

No

Each

18.0000

1

**\*MS21919WDG10\***

**\*\***

Clamp

Smb

Location

Loc Qty

Loc Code

Return2016

1

m128993

1

ST293

17

m128401

1

m128993

16

DAS  
DAS  
28-89  
9-89

MS21919WDG19

Purchased

No

Each

6.0000

1

**\*MS21919WDG19\***

**\*\***

Clamp

Smb

Location

Loc Qty

Loc Code

ST291

6

m126741

1

m133988

5

DAS  
8  
9-89

DAS  
28  
9-89

MS24693-24B

Purchased

No

Each

88.0000

4

**\*MS24693-24B\***

**\*\***

Screw

Smb

Location

Loc Qty

Loc Code

GA

32

m133790

32

ST288

56

m132256

56

APR 30 2016

DAS  
8  
9-89

DAS  
28  
9-89



# Picklist Print

April 18, 2016 11:22:46 AM

Page 5

Work Order ID: 144440

**\*144440\***

Parent Item: D212-803-219

**\*D212-803-219\***

Parent Item Name: Left Hand Pilot in Command - Medium/Standard Design, Eagle Single

Start Date: 4/20/2016

Required Date: 5/6/2016

Start Qty: 1.00

Required Qty: 1.00

MS27039-1-07

Purchased

No

Each

329.0000

1

**\*MS27039-1-07\***

**\*\***

Screw

Smb

Location

Loc Qty

Loc Code

GA

304

125654

304

Return2016

1

m127813

1

ST281

24

125654

24

Each

2,093.000

2

**\*\***

NAS1149D0363J

Purchased

No

**\*NAS1149D0363.J\***

Washer

Smb

Location

Loc Qty

Loc Code

GA

583

m134055

583

ST260a

1000

m134606

1000

ST263

510

m134370

510

DAS  
6  
9-89

DAS  
28  
9-89

DAS  
6  
9-89

DAS  
28  
9-89

APR 30 2016

# DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS IIN-D212-803 REV. D AND INSTRUCTIONS  
FOR CONTINUED AIRWORTHINESS ICA-D212-803 REV. 3 OR LATER APPROVED REVISION  
REF. FAA STC: SR02233SE

## 1.0 PURPOSE

The purpose of the DSI is to amend the installation of the D4410-041/-043/-045 Co-Pilot Collective Head Assembly and the D5046-041/-043/-045 Co-Pilot Collective Head Assembly on the Collective Stick of the Bell 205/212/412 model aircraft for DXXX-803-0XX at CHG 003 and later and the DXXX-803-1XX at CHG 002 and later.

## 2.0 PROCEDURE

2.1 To install DXXXX-041/-043/-045 Co-Pilot Collective Head Assembly onto Collective Stick Assembly (Bell p/n 205-001-117-1 for 205, Bell p/n 212-001-117-1 for 212/412 and Bell p/n 212-001-171-001 for Eagle Single), position the Head Assembly on the Collective Stick Assembly so that it is angled away from the door and does not contact the pilot's leg. Transfer drill the mounting hole on the Collective Stick Assembly to the desired location on the neck of the DXXXX-041/-043/-045 Collective Head.

2.2 To adjust the position of the DXXXX-041/-043/-045 Collective Head Assembly, it is acceptable to remove  $\frac{1}{2}$ " to  $\frac{3}{4}$ " off of the neck as desired.

2.3 Wet the Collective Head Assembly with Proseal 890 or equivalent and mount using Pin (p/n MS171539 on DXXXX-041 Collective Head or p/n MS171599 on DXXXX-043/-045 Collective Head) per Figure 1. Apply Aircraft Primer to Pin.

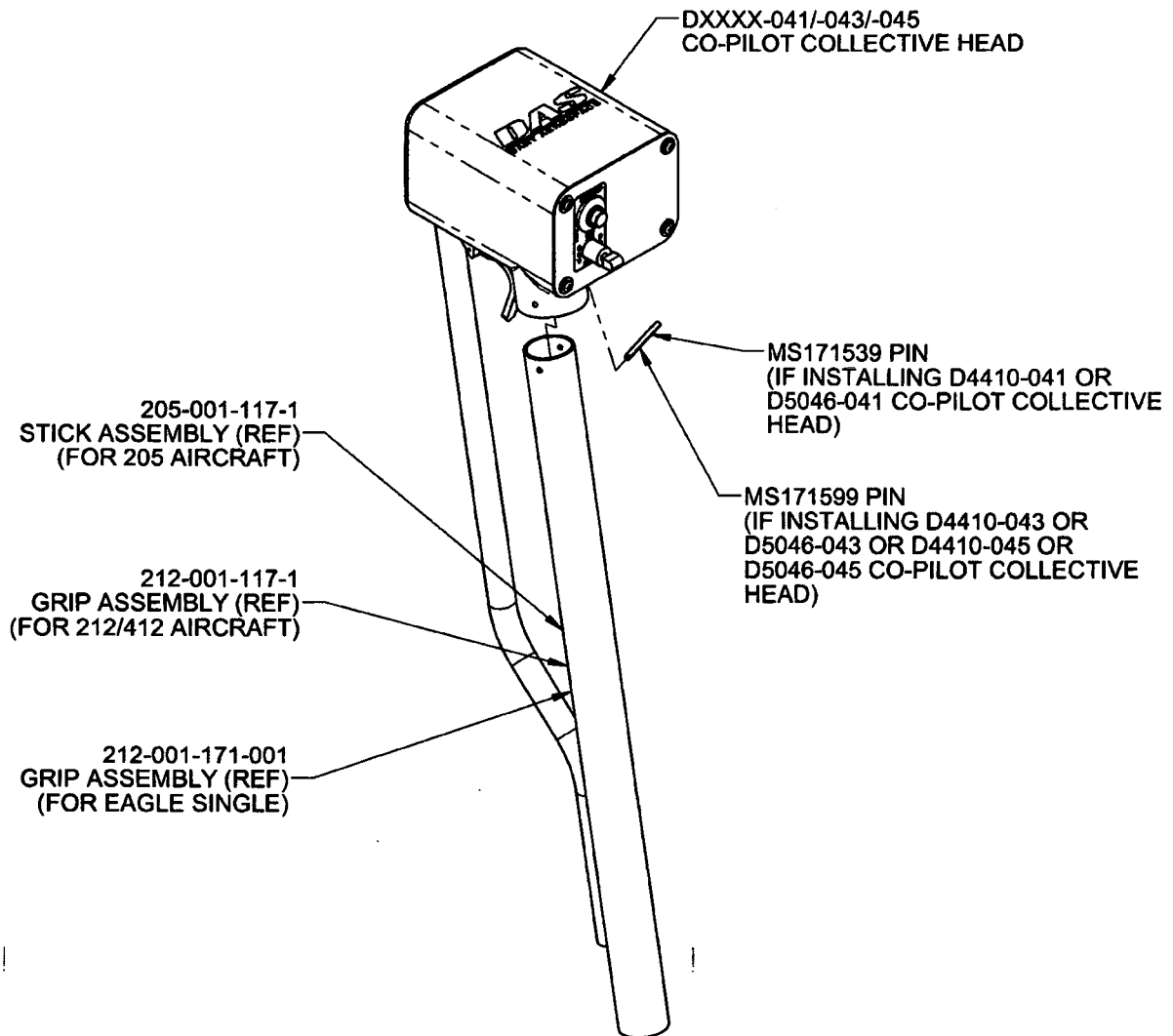
## 3.0 WEIGHT AND BALANCE

Aircraft Weight and Balance are not affected by this change.

2-160418

SN  
144490

|            |             |                                                                                                                                                                                                                                                                                 |              |
|------------|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| A          | NEW ISSUE   | VS                                                                                                                                                                                                                                                                              | 15.06.24     |
| REV.       | DESCRIPTION | BY                                                                                                                                                                                                                                                                              | DATE         |
| DESIGN     | VS          | <b>DART AEROSPACE LTD</b><br>HAWKESBURY, ONTARIO, CANADA                                                                                                                                                                                                                        |              |
| DRAWN      | VS          |                                                                                                                                                                                                                                                                                 |              |
| CHECKED    | HS          | DRAWING NO.                                                                                                                                                                                                                                                                     | REV. A       |
| MFG. APPR. | N/A         | DSI 9728                                                                                                                                                                                                                                                                        | SHEET 1 OF 3 |
| APPROVED   | HS          | TITLE                                                                                                                                                                                                                                                                           | SCALE        |
| DE APPR.   |             | LH PIC INSTALLATION                                                                                                                                                                                                                                                             | NTS          |
| DATE       | 15.06.24    | COPYRIGHT © 2015 BY DART AEROSPACE LTD.<br>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS<br>NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT<br>WRITTEN PERMISSION FROM DART AEROSPACE LTD. |              |



**FIGURE 1 - Co-Pilot Collective Head Installation**  
D4410-041 SHOWN D4410-043/-045 AND D5046-041/-043/-045 SIMILAR)

|            |                 |                                                                                                                                                                                                                                                                                                      |              |
|------------|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| DESIGN     | VS              | <b>DART AEROSPACE LTD</b><br>HAWKESBURY, ONTARIO, CANADA                                                                                                                                                                                                                                             |              |
| DRAWN      | VS              |                                                                                                                                                                                                                                                                                                      |              |
| CHECKED    | HS              | DRAWING NO.                                                                                                                                                                                                                                                                                          | REV. A       |
| MFG. APPR. | N/A             | <b>DSI 9728</b>                                                                                                                                                                                                                                                                                      | SHEET 2 OF 3 |
| APPROVED   | HS              | TITLE                                                                                                                                                                                                                                                                                                | SCALE        |
| DE APPR.   | <del>HS</del>   | <b>LH PIC INSTALLATION</b>                                                                                                                                                                                                                                                                           | NTS          |
| DATE       | <b>15.06.24</b> | <small>COPYRIGHT © 2015 BY DART AEROSPACE LTD.<br/> THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS<br/> NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT<br/> WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small> |              |

## 4.0 PARTS LISTS

Amend Parts Lists for the following kits per tables below.

### 4.1 Large Collective Head Kits

| Qty<br>-011 | Qty<br>-013 | Qty<br>-015 | Qty<br>-017 | Qty<br>-019 | Part Number  | Description                                 |
|-------------|-------------|-------------|-------------|-------------|--------------|---------------------------------------------|
| X           |             |             |             |             | D205-803-011 | LEFT HAND PILOT IN COMMAND, COMPLETE KIT    |
|             | X           |             |             |             | D205-803-013 | LEFT HAND PILOT IN COMMAND, MECHANICAL ONLY |
|             |             | X           |             |             | D212-803-015 | LEFT HAND PILOT IN COMMAND, COMPLETE KIT    |
|             |             |             | X           |             | D212-803-017 | LEFT HAND PILOT IN COMMAND, MECHANICAL ONLY |
|             |             |             |             | X           | D212-803-019 | LEFT HAND PILOT IN COMMAND, EAGLE SINGLE    |
| 1           | 1           |             |             |             | MS171539     | PIN                                         |
|             |             | 1           | 1           | 1           | MS171599     | PIN                                         |

### 4.2 Small Collective Head Kits

| Qty<br>-111 | Qty<br>-113 | Qty<br>-115 | Qty<br>-117 | Qty<br>-119 | Part Number  | Description                                 |
|-------------|-------------|-------------|-------------|-------------|--------------|---------------------------------------------|
| X           |             |             |             |             | D205-803-111 | LEFT HAND PILOT IN COMMAND, COMPLETE KIT    |
|             | X           |             |             |             | D205-803-113 | LEFT HAND PILOT IN COMMAND, MECHANICAL ONLY |
|             |             | X           |             |             | D212-803-115 | LEFT HAND PILOT IN COMMAND, COMPLETE KIT    |
|             |             |             | X           |             | D212-803-117 | LEFT HAND PILOT IN COMMAND, MECHANICAL ONLY |
|             |             |             |             | X           | D212-803-119 | LEFT HAND PILOT IN COMMAND, EAGLE SINGLE    |
| 1           | 1           |             |             |             | MS171539     | PIN                                         |
|             |             | 1           | 1           | 1           | MS171599     | PIN                                         |

### 4.3 Medium Collective Head Kits

| Qty<br>-211 | Qty<br>-213 | Qty<br>-215 | Qty<br>-217 | Qty<br>-219 | Part Number  | Description                                 |
|-------------|-------------|-------------|-------------|-------------|--------------|---------------------------------------------|
| X           |             |             |             |             | D205-802-211 | LEFT HAND PILOT IN COMMAND, COMPLETE KIT    |
|             | X           |             |             |             | D205-803-213 | LEFT HAND PILOT IN COMMAND, MECHANICAL ONLY |
|             |             | X           |             |             | D212-803-215 | LEFT HAND PILOT IN COMMAND, COMPLETE KIT    |
|             |             |             | X           |             | D212-803-217 | LEFT HAND PILOT IN COMMAND, MECHANICAL ONLY |
|             |             |             |             | X           | D212-803-219 | LEFT HAND PILOT IN COMMAND, EAGLE SINGLE    |
| 1           | 1           |             |             |             | MS171539     | PIN                                         |
|             |             | 1           | 1           | 1           | MS171599     | PIN                                         |

|            |                                                                                     |                                                                                                                                                                                                                                                                                 |              |
|------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| DESIGN     | VS                                                                                  | <b>DART AEROSPACE LTD</b><br>HAWKESBURY, ONTARIO, CANADA                                                                                                                                                                                                                        |              |
| DRAWN      | VS                                                                                  |                                                                                                                                                                                                                                                                                 |              |
| CHECKED    | HS                                                                                  | DRAWING NO.                                                                                                                                                                                                                                                                     | REV. A       |
| MFG. APPR. | N/A                                                                                 | DSI 9728                                                                                                                                                                                                                                                                        | SHEET 3 OF 3 |
| APPROVED   | HS                                                                                  | TITLE                                                                                                                                                                                                                                                                           | SCALE        |
| DE APPR.   |  | LH PIC INSTALLATION                                                                                                                                                                                                                                                             | NTS          |
| DATE       | 15.06.24                                                                            | COPYRIGHT © 2015 BY DART AEROSPACE LTD.<br>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS<br>NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT<br>WRITTEN PERMISSION FROM DART AEROSPACE LTD. |              |

# Work Order ID 144440

April 18, 2016 11:22:42 AM

\*144440\*

Page 1

Item ID: D212-803-219 Accept \*N900040100\* Setup Start \*NS1\*

Revision ID:

Item Name: Left Hand Pilot in Command - Medium/Standard Design, Eagle Single Stop \*NS2\*

Start Date: 4/20/2016 Start Qty: 1.00 \*1\* Cust Item ID:

Required Date: 5/6/2016 Req'd Qty: 1.00 \*1\* Customer:

Reference:

Approvals: Process Plan: SL Date: 20160418 Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start \*NR1\*

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop \*NR2\*

| Sequence ID/<br>Work Center ID | Operation<br>Description | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
| Draw Nbr                       | Revision Nbr             |                      |         |        |              |               |               |                  |                |
| DSI9728                        | A                        |                      |         |        |              |               |               |                  |                |
| IIN-D212-803                   | D                        |                      |         |        |              |               |               |                  |                |

100 Document Control 0.00

\*100\*

DC

Doc.Control -USB or Paperwork

Memo

Photocopy blue file and type labels per PPP D212-803-219 CHG001

MCJ APR 28 2016

110 Pick Kit 0.00

\*110\*

Packaging

Packaging

Memo

## 7. PARTS LIST - MEDIUM COLLECTIVE HEAD KITS

| Qty<br>-211 | Qty<br>-213 | Qty<br>-215 | Qty<br>-217 | Qty<br>-219 | Qty<br>-221 | Qty<br>-223 | Part Number   | Description                                                                                      |
|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------|--------------------------------------------------------------------------------------------------|
| X           |             |             |             |             |             |             | D205-803-211  | LEFT HAND PILOT IN COMMAND, COMPLETE KIT                                                         |
|             | X           |             |             |             |             |             | D205-803-213  | LEFT HAND PILOT IN COMMAND, MECHANICAL ONLY                                                      |
|             |             | X           |             |             |             |             | D212-803-215  | LEFT HAND PILOT IN COMMAND, COMPLETE KIT                                                         |
|             |             |             | X           |             |             |             | D212-803-217  | LEFT HAND PILOT IN COMMAND, MECHANICAL ONLY                                                      |
|             |             |             |             | X           |             |             | D212-803-219  | LEFT HAND PILOT IN COMMAND, EAGLE SINGLE                                                         |
|             |             |             |             |             | X           |             | D205-803-221  | LEFT HAND PILOT IN COMMAND, COMPLETE KIT                                                         |
|             |             |             |             |             |             | X           | D205-803-223  | LEFT HAND PILOT IN COMMAND, MECHANICAL ONLY                                                      |
| 1           | 1           |             |             |             |             |             | D5155-041     | CO-PILOT COLLECTIVE HEAD ASSEMBLY (205)                                                          |
|             |             | 1           | 1           |             |             |             | D5155-043     | CO-PILOT COLLECTIVE HEAD ASSEMBLY (212)                                                          |
|             |             |             |             | 1           |             |             | D5155-045     | CO-PILOT COLLECTIVE HEAD ASSEMBLY (EAGLE SINGLE)                                                 |
|             |             |             |             |             | 1           | 1           | D5155-047     | CO-PILOT COLLECTIVE HEAD ASSEMBLY (205 WITH THE 204-001-290-5 STICK AND THROTTLE ASSY INSTALLED) |
| 1           | 1           |             |             | 1           | 1           | 1           | D5156-1       | FACE PLATE                                                                                       |
| 1           | 1           |             |             | 1           | 1           | 1           | D5156-3       | FACE PLATE                                                                                       |
|             |             | 1           | 1           |             |             |             | D5156-5       | FACE PLATE                                                                                       |
|             |             | 1           | 1           |             |             |             | D5156-7       | FACE PLATE                                                                                       |
| 1           | 1           |             |             | 1           | 1           | 1           | D4410-9       | TRIGGER                                                                                          |
| 1           | 1           |             |             | 1           | 1           | 1           | D5055-1       | PLACARD                                                                                          |
| 1           | 1           | 1           | 1           | 1           | 1           | 1           | D5055-3       | PLACARD                                                                                          |
|             |             | 1           | 1           |             |             |             | D5055-5       | PLACARD                                                                                          |
|             |             | 1           | 1           |             |             |             | D5055-7       | PLACARD                                                                                          |
|             |             | 1           | 1           |             |             |             | D5055-9       | PLACARD                                                                                          |
| 1           | 1           | 1           | 1           | 1           |             |             | D4411-7       | PLACARD                                                                                          |
|             |             | 1           |             |             |             |             | 27ET51-T      | SWITCH (ALT P/N 212-075-153-3)                                                                   |
| 1           |             |             |             |             | 1           |             | 2PB744-T2     | SWITCH                                                                                           |
|             |             | 3           |             |             |             |             | 30-037-26     | DIODE ASSEMBLY                                                                                   |
|             |             | 2           |             |             |             |             | 30-037-3      | DIODE ASSEMBLY                                                                                   |
| 1           | 1           |             |             | 1           | 1           | 1           | AN565F8H9     | SETSCREW                                                                                         |
|             |             | 3           |             |             |             |             | AN961-6T      | WASHER                                                                                           |
|             |             | 1           |             |             |             |             | 51MXY-5-J     | SWITCH                                                                                           |
| 1           |             |             |             |             | 1           |             | C100E2-39     | SWITCH                                                                                           |
| 17          |             | AR (21)     |             |             | 17          |             | M39029/31-240 | PIN                                                                                              |
| 17          |             | AR (21)     |             |             | 17          |             | M39029/32-259 | SOCKET                                                                                           |
|             |             | AR (2)      |             |             |             |             | M39029/31-228 | PIN                                                                                              |
|             |             | AR (2)      |             |             |             |             | M39029/32-247 | SOCKET                                                                                           |
| 1           | 1           |             |             | 1           | 1           | 1           | MS20253-1-065 | PIN                                                                                              |
|             |             | 3           |             |             |             |             | MS21042L06    | NUT                                                                                              |
| 1           | 1           |             |             | 1           | 1           | 1           | MS21042L08    | NUT                                                                                              |
| 1           | 1           | 1           | 1           | 1           | 1           | 1           | MS21042L3     | NUT                                                                                              |
|             |             | 2           |             |             |             |             | MS21044N04    | NUT                                                                                              |
| 1           | 1           | 1           | 1           | 1           |             |             | MS21919WDG10  | CLAMP                                                                                            |
|             |             | 1           | 1           | 1           |             |             | MS21919WDG19  | CLAMP                                                                                            |
| 1           | 1           |             |             |             |             |             | MS21919WDG20  | CLAMP                                                                                            |
|             |             | 1           |             |             |             |             | MS24523-27    | SWITCH                                                                                           |
|             |             | 2           |             |             |             |             | MS24693-S7    | SCREW                                                                                            |
| 4           | 4           | 4           | 4           | 4           | 4           | 4           | MS24693-24B   | SCREW                                                                                            |
| 1           | 1           | 1           | 1           | 1           | 1           | 1           | MS27039-1-07  | SCREW                                                                                            |
|             |             | 1           |             |             |             |             | MS27212-1-3   | TERMINAL BOARD                                                                                   |
| 1           |             |             |             |             | 1           |             | MS3126E14-19P | PLUG                                                                                             |
| 1           |             |             |             |             | 1           |             | MS3120E14-19S | SOCKET                                                                                           |
|             |             | 2           |             |             |             |             | MS3126E16-99P | PLUG                                                                                             |
|             |             | 1           |             |             |             |             | MS3120E16-99S | SOCKET                                                                                           |
|             |             | 3           |             |             |             |             | MS3373-A1     | STRIP                                                                                            |
| 2           | 2           | 2           | 2           | 2           |             |             | NAS1149D0363J | WASHER                                                                                           |
|             |             |             |             |             | 2           | 2           | MS24665-289   | COTTER PIN                                                                                       |
| 1           | 1           | 1           | 1           | 1           | 1           | 1           | D212-803      | KIT PAPERWORK                                                                                    |

#### 4.0 PARTS LISTS

#### REFERENCE ONLY

Amend Parts Lists for the following kits per tables below.

##### 4.1 Large Collective Head Kits

| Qty<br>-011 | Qty<br>-013 | Qty<br>-015 | Qty<br>-017 | Qty<br>-019 | Part Number  | Description                                 |
|-------------|-------------|-------------|-------------|-------------|--------------|---------------------------------------------|
| X           |             |             |             |             | D205-803-011 | LEFT HAND PILOT IN COMMAND, COMPLETE KIT    |
|             | X           |             |             |             | D205-803-013 | LEFT HAND PILOT IN COMMAND, MECHANICAL ONLY |
|             |             | X           |             |             | D212-803-015 | LEFT HAND PILOT IN COMMAND, COMPLETE KIT    |
|             |             |             | X           |             | D212-803-017 | LEFT HAND PILOT IN COMMAND, MECHANICAL ONLY |
|             |             |             |             | X           | D212-803-019 | LEFT HAND PILOT IN COMMAND, EAGLE SINGLE    |
| 1           | 1           |             |             |             | MS171539     | PIN                                         |
|             |             | 1           | 1           | 1           | MS171599     | PIN                                         |

##### 4.2 Small Collective Head Kits

| Qty<br>-111 | Qty<br>-113 | Qty<br>-115 | Qty<br>-117 | Qty<br>-119 | Part Number  | Description                                 |
|-------------|-------------|-------------|-------------|-------------|--------------|---------------------------------------------|
| X           |             |             |             |             | D205-803-111 | LEFT HAND PILOT IN COMMAND, COMPLETE KIT    |
|             | X           |             |             |             | D205-803-113 | LEFT HAND PILOT IN COMMAND, MECHANICAL ONLY |
|             |             | X           |             |             | D212-803-115 | LEFT HAND PILOT IN COMMAND, COMPLETE KIT    |
|             |             |             | X           |             | D212-803-117 | LEFT HAND PILOT IN COMMAND, MECHANICAL ONLY |
|             |             |             |             | X           | D212-803-119 | LEFT HAND PILOT IN COMMAND, EAGLE SINGLE    |
| 1           | 1           |             |             |             | MS171539     | PIN                                         |
|             |             | 1           | 1           | 1           | MS171599     | PIN                                         |

##### 4.3 Medium Collective Head Kits

| Qty<br>-211 | Qty<br>-213 | Qty<br>-215 | Qty<br>-217 | Qty<br>-219 | Part Number  | Description                                 |
|-------------|-------------|-------------|-------------|-------------|--------------|---------------------------------------------|
| X           |             |             |             |             | D205-802-211 | LEFT HAND PILOT IN COMMAND, COMPLETE KIT    |
|             | X           |             |             |             | D205-803-213 | LEFT HAND PILOT IN COMMAND, MECHANICAL ONLY |
|             |             | X           |             |             | D212-803-215 | LEFT HAND PILOT IN COMMAND, COMPLETE KIT    |
|             |             |             | X           |             | D212-803-217 | LEFT HAND PILOT IN COMMAND, MECHANICAL ONLY |
|             |             |             |             | X           | D212-803-219 | LEFT HAND PILOT IN COMMAND, EAGLE SINGLE    |
| 1           | 1           |             |             |             | MS171539     | PIN                                         |
|             |             | 1           | 1           | 1           | MS171599     | PIN                                         |

|            |                                                                                     |                                                                                                                                                                                                                                                                                          |              |
|------------|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| DESIGN     | VS                                                                                  | <b>DART AEROSPACE LTD</b><br>HAWKESBURY, ONTARIO, CANADA                                                                                                                                                                                                                                 |              |
| DRAWN      | VS                                                                                  |                                                                                                                                                                                                                                                                                          |              |
| CHECKED    | HS                                                                                  | DRAWING NO.                                                                                                                                                                                                                                                                              | REV. A       |
| MFG. APPR. | N/A                                                                                 | DSI 9728                                                                                                                                                                                                                                                                                 | SHEET 3 OF 3 |
| APPROVED   | HS                                                                                  | TITLE                                                                                                                                                                                                                                                                                    | SCALE        |
| DE APPR.   |  | LH PIC INSTALLATION                                                                                                                                                                                                                                                                      | NTS          |
| DATE       | 15.06.24                                                                            | COPYRIGHT © 2015 BY DART AEROSPACE LTD.<br><small>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small> |              |